FIG. 1

PROCEDURE DIAGRAM OF PRESCRIPTION CHANGE OF
REQUIREMENT WORD (Y OPERATION)

② Y OPERATION   ② Y OPERATION

①   ①

b	c	d	e	f
PRE-SCRIP-TION	PRE-SCRIP-TION	PRE-SCRIP-TION	PRE-SCRIP-TION	PRE-SCRIP-TION

g	h	d	e	f
PRE-SCRIP-TION	PRE-SCRIP-TION	PRE-SCRIP-TION	PRE-SCRIP-TION	PRE-SCRIP-TION

FIRST LINK DEFINING WORD GROUP
BEFORE CHANGE OF a

FIRST LINK DEFINING WORD GROUP
AFTER CHANGE OF a

REQUIREMENT WORD a

PRESCRIPTION BEFORE CHANGE
$=b+c$,CONDITION:$d<100$
$=e-f$,CONDITION:$d>=100$

PRESCRIPTION AFTER CHANGE
$=g+h$,CONDITION:$d<100$
$=e-f$,CONDITION:$d>=100$

①

FIRST LINK CONTAINING WORD GROUP OF a

①

p	q	r	s
PRE-SCRIP-TION	PRE-SCRIP-TION	PRE-SCRIP-TION	PRE-SCRIP-TION

② Y OPERATION

Y OPERATION
(OPERATION CHART
HAS Y-SHAPE)

① CHANGE PRESCRIPTION OF REQUIREMENT WORD a.
EXTRACT FIRST LINK DEFINING WORD GROUP BEFORE AND AFTER CHANGE.
(b, c, d, e, f, and g, h, d, e, f)
EXTRACT FIRST LINK CONTAINING WORD GROUP OF THE REQUIREMENT WORD.
(p, q, r, s)

② STUDY WHETHER OR NOT PRESCRIPTIONS OF INDIVIDUAL REQUIREMENT WORDS OF FIRST
LINK DEFINING WORD GROUP AND FIRST LINK CONTAINING WORD GROUP REQUIRE CHANGE.
PERFORM Y-OPERATION WITH RESPECT TO THE CORRESPONDING INDIVIDUAL WORDS, IF THERE
IS EVEN ONE CHANGE.
CONTINUE UNTIL THERE IS NOT CHANGE NEEDED IN ALL LINK WORDS.
END IF THERE IS NOT ANY CHANGE NEEDED IN LIGHT OF THE FACT THAT CHANGE DOES NOT
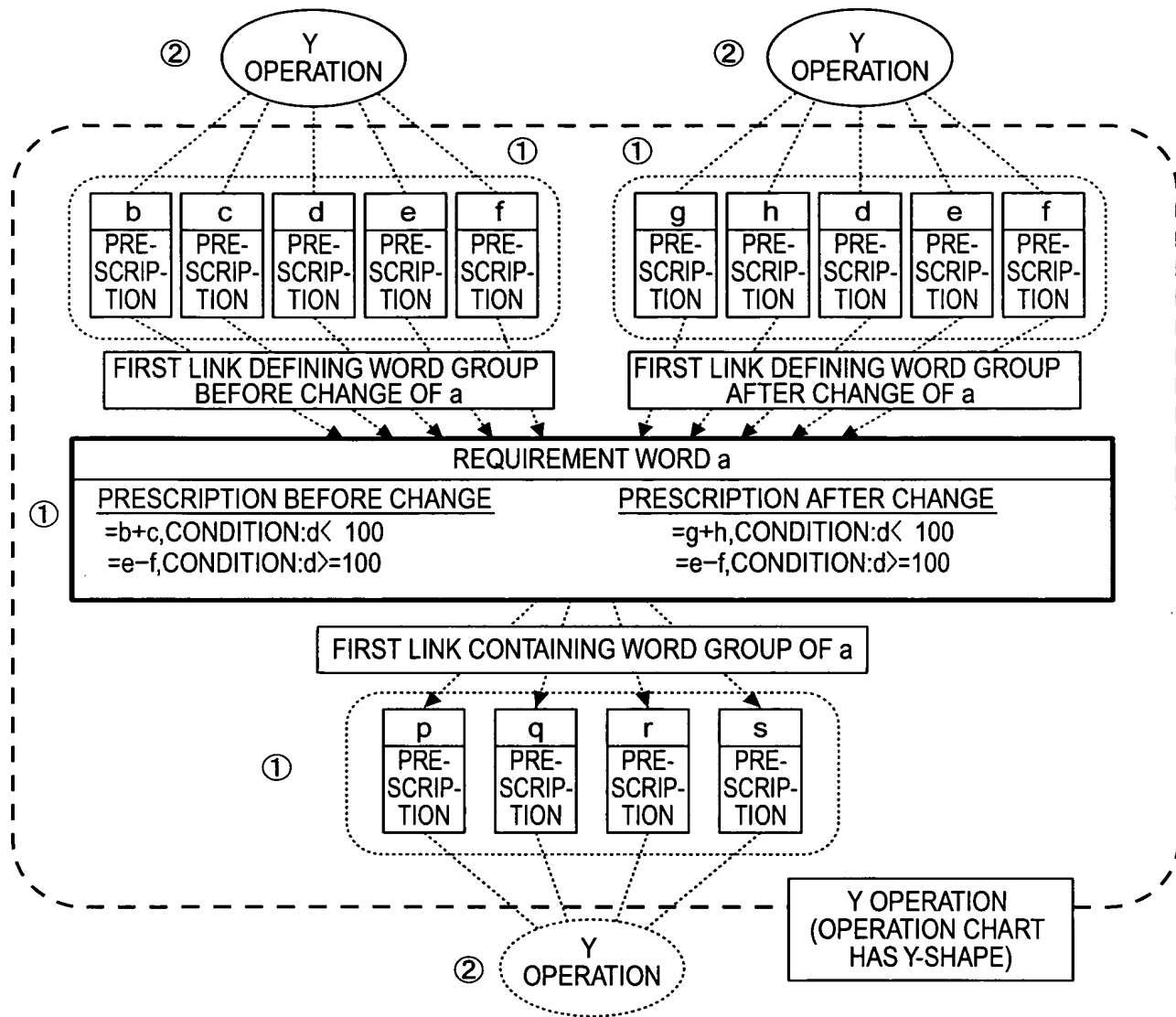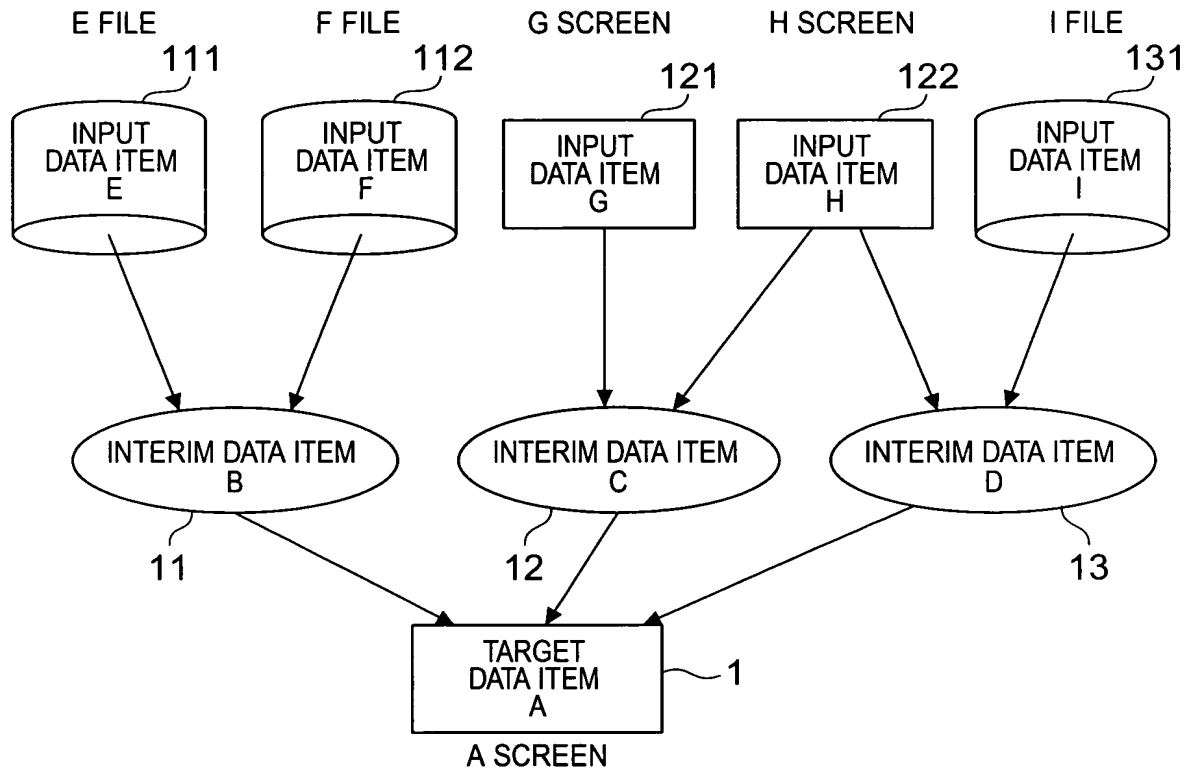INFLUENCE THE SUBSEQUENT LINK WORDS.

FIG. 2

CHAIN REQUIREMENT DEFINITION METHOD
(DATA CHAIN REQUIREMENT DEFINITION (DCRD) METHOD)
RELATION DIAGRAM BETWEEN DATA ITEMS

RELATION AMONG DATA ITEMS A, B, C, D SHOWN ABOVE
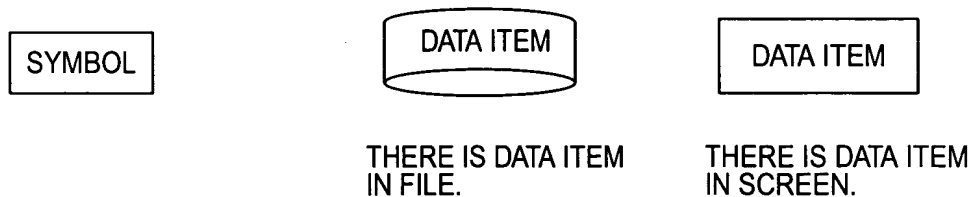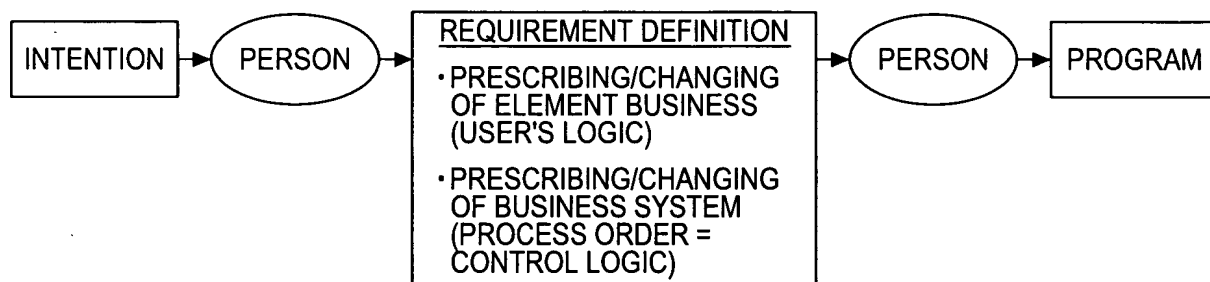INDICATES DATA ITEM A IS CONSTITUTED OF DATA ITEMS B, C, D.

SYMBOL

DATA ITEM

THERE IS DATA ITEM
IN FILE.

DATA ITEM

THERE IS DATA ITEM
IN SCREEN.

FIG. 3

CONVENTIONAL METHOD

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┌───────────┐   ╭────────╮   ┌──────────────────────────┐   ╭────────╮   ┌──────────┐
│ INTENTION │──▶│ PERSON │──▶│ REQUIREMENT DEFINITION    │──▶│ PERSON │──▶│ PROGRAM  │
└───────────┘   ╰────────╯   │ ・PRESCRIBING/CHANGING     │   ╰────────╯   └──────────┘
                             │   OF ELEMENT BUSINESS     │
                             │   (USER'S LOGIC)          │
                             │                           │
                             │ ・PRESCRIBING/CHANGING     │
                             │   OF BUSINESS SYSTEM      │
                             │   (PROCESS ORDER =        │
                             │   CONTROL LOGIC)          │
                             └──────────────────────────┘
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AUTOMATIC PROGRAMMING METHOD

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┌───────────┐   ╭────────╮   ┌──────────────────────────┐   ╭──────────────╮   ┌──────────┐
│ INTENTION │──▶│ PERSON │──▶│ REQUIREMENT DEFINITION    │──▶│  AUTOMATIC   │──▶│ PROGRAM  │
└───────────┘   ╰────────╯   │ ・PRESCRIBING/CHANGING     │   │ PROGRAMMING  │   └──────────┘
                             │   OF ELEMENT BUSINESS     │   ╰──────────────╯
                             │   (USER'S LOGIC)          │
                             └──────────────────────────┘
```